

AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A method comprising:
detecting network nodes on a network by a network manager;
selecting by the network manager a tag size, as a prescribed number of bits, of an address field of a network to be used for switching data packets traversing the network, based on a number of the detected network nodes, each data packet having a header with content,
configuring by the network manager each network switch of the network to switch each of the data packets based on a corresponding switching tag, added to a start of the corresponding data packet and the switching tag having the selected tag size of the address field, without altering the content of the header.
2. (ORIGINAL) The method of claim 1, wherein the configuring step includes sending a management datagram to each network switch, the management datagram specifying that switching is to be based on the switching tag, and the selected size of the switching tag.
3. (PREVIOUSLY PRESENTED) The method of claim 1, wherein detecting step and configuring step each include accessing the network according to InfiniBand™ network protocol.
4. (ORIGINAL) The method of claim 3, further comprising:
receiving by a first of the network switches an InfiniBand™ packet having a destination local identifier (DLID) specifying a destination node on the network;
adding by the first network switch a new switching tag to the start of the InfiniBand™ packet and having the selected size, and specifying the destination node based on the DLID;
and

switching the InfiniBand™ packet having the new switching tag to a second of the network switches based on the switching tag.

5. (ORIGINAL) The method of claim 4, further comprising:
receiving the InfiniBand™ packet including the new switching tag by the second network switch; and

selectively removing, by the second network switch, the new switching tag from the InfiniBand™ packet based on whether the new switching tag specifies a destination node reachable by the second network switch; and

selectively outputting the InfiniBand™ packet, following removal of the new switching tag, to the destination node based on the destination node being reachable by the second network switch.

6. (ORIGINAL) The method of claim 5, further comprising selectively outputting, by the second network switch, the InfiniBand™ packet including the new switching tag to a third of the network switches based on a determined unreachability of the destination node by the second network switch.

7. (CURRENTLY AMENDED) A network manager comprising:
an explorer resource configured for detecting network nodes on the network; and
a controller configured for selecting a tag size, as a prescribed number of bits, of address fields of a network to be used for switching data packets traversing the network, based on a number of the detected network nodes, each data packet having a header with content, the controller configuring each network switch of the network to switch each of the data packets based on a corresponding switching tag, added to a start of the corresponding data packet and the switching tag having the selected tag size of the address field, without altering the content of the header.

8. (ORIGINAL) The network manager of claim 7, wherein the network manager is configured for sending a management datagram to each network switch, the management datagram specifying that switching is to be based on the switching tag, and the selected size of the switching tag.

9. (PREVIOUSLY PRESENTED) The network manager of claim 7, wherein the explorer resource and the controller each are configured for accessing the network according to InfiniBand™ network protocol.

10. (CURRENTLY AMENDED) A network within a server system, the network comprising:

a plurality of network switches configured for switching data packets; and
a network manager configured for detecting network nodes and the network switches, the network manager configured for selecting a tag size, as a prescribed number of bits, of address fields of a network to be used for switching the data packets, based on a number of the detected network nodes and the detected network switches, each data packet having a header with content, the network manager configured for configuring the network switches to switch each of the data packets based on a corresponding switching tag added to a start of the corresponding data packet and the switching tag having the selected tag size of the address field, each network switch switching a received data packet based on the corresponding switching tag, without altering the content of the header.

11. (PREVIOUSLY PRESENTED) The network of claim 10, wherein the size corresponds to a selected number of bits.

12. (ORIGINAL) The network of claim 11, wherein each network switch is

configured for generating address table entries based on the selected size.

13. (ORIGINAL) The network of claim 11, wherein the at least one network switch and the network nodes are configured for communication according to InfiniBand™ network protocol.

14. (ORIGINAL) The network of claim 11, wherein each network switch is configured for adding a new switching tag to the start of an InfiniBand™ packet received from a network node and having a destination local identifier (DLID) specifying a destination node on the network, the new switching tag specifying the destination node based on the DLID and having the selected size.

15. (ORIGINAL) The network of claim 14, wherein each network switch is configured for selectively removing the new switching tag from the InfiniBand™ packet based on whether the new switching tag specifies a destination node reachable by the corresponding network switch.